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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,325	09/28/2001	Mark Sullivan	NIOC 7772	3172

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SENNIGER POWERS  
ONE METROPOLITAN SQUARE  
16TH FLOOR  
ST LOUIS, MO 63102

EXAMINER
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LEVITAN, DMITRY

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/966,325	Applicant(s) SULLIVAN, MARK	
	Examiner Dmitry Levitan	Art Unit 2616	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2616

Amendment, filed 2/16/06, has been entered. Claims 1-20 remain pending.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 8-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 8 and 12 limitations “electronic compass... providing a corresponding coordinate signal ... and modulating the coordinate signal to optimize reception of the transmission signal at the satellite” are not supported by the specification as filed.

Claims 9 and 13 limitations “the antenna controller modulates the coordinate signal such that the antenna sweeps a range of directions” are not supported by the specification as filed.

Claims 10, 14 and 18 limitations “the portable satellite uplink is responsive to a teleport for setting a transmitter center frequency and data rate, said center frequency and data rate defining a desired bandwidth for transmission to a particular satellite to manage transmissions from a plurality of portable satellite uplinks to one more satellites” are not supported by the specification as filed.

Art Unit: 2616

Claim 16 limitations “receiving the coordinate signal at antenna, wherein the antenna directs the transmission signal according to the received coordinate signal” are not supported by the specification as filed.

Claims 11, 15 and 19 limitations “the portable satellite uplink is responsive to a teleport for adjusting the power with which the satellite transmission signal is transmitted” are not supported by the specification as filed.

3. Claims 8-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not provide sufficient details to enable a skilled in the art to make and use the invention because it does not adequately describe the following:

Regarding claims 8, 12 and 16, how to optimize reception of the transmission signal at the satellite.

Regarding claims 10, 14 and 18, how portable satellite uplink is responsive to a teleport for setting a transmitter center frequency and data rate, said center frequency and data rate defining a desired bandwidth for transmissions to a particular satellite to manage transmissions from a plurality of portable uplinks to one ore more satellite.

Regarding claims 11, 15 and 19, how portable satellite uplink is responsive to teleport for adjusting the power with which the satellite transmission signal is transmitted.

Art Unit: 2616

The specification does not provide enough details about the structure and operation of the elements associated with the above identified claimed features to enable one skilled in the art to make and use the invention without undue experimentation.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 12 limitations “providing a corresponding coordinate signal representative thereof” are unclear, because it is not understood what is “representative thereof” in the context of the claims.

Claims 10, 14 and 18 limitations “said center frequency and data rate defining a desired bandwidth for transmission” are unclear, because it is not understood what bandwidth is desirable and what is not, as no criteria is known for “desired” bandwidth.

Claims 11 and 15 limitations “the portable uplink is responsive to a teleport for adjusting the power with which the satellite transmission signal is transmitted” is unclear because it is not understood what devices causes the power adjustment: the portable uplink or the teleport.

### ***Claim Rejections - 35 USC § 103***

1. Claims 1, 4, 6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toporek (US 6,584,083) in view of Haldeman (US 6,801,576).

Toporek substantially teaches the limitations of claims 1, 4, 6 and 20:

Art Unit: 2616

A satellite uplink for use in connection with a system transmitting media content from first location to a second location (uplink of the satellite system shown on Fig. 1 and 5:6-18, interconnecting two satellite gateways 111A and 111B, operating as central gateways for other gateways to connect them through the satellite link 5:54-60), including a satellite communication link having a transmission propagation delay (satellite links with significant latency 2:38-43, wherein each satellite hop can have latency from 200 ms to 700 ms 10:58-11:2), a communication satellite (satellite on Fig. 1 and 2, 5:6-14),

An encoder encoding media content into a first digital (all formats on the computer 123, shown on Fig. 1 and 5:27-37, are inherently digital, because computers are digital devices) format at the first location (inherently part of client computer 123 on Fig. 1, because encoding application programs run on the computer, as described on 1:47-67, into TCP/IP packets, disclosed on 5:28-36, is essential for the system operation), said format is being sensitive to the transmission propagation delay and requiring at least one transmission acknowledgement signal (TCP format problems with long latency typical for satellite link, including the protocol acknowledgements 4:27-44), the satellite uplink comprising:

A control processor (inherently part of satellite gateway 111A, because all gateways have processors) receiving media content in the first format and providing the at least one transmission acknowledgement signal to the encoder (satellite gateway 203 as shown on Fig. 2, receiving TCP/IP packets from client 201, including the protocol acknowledgements 4:27-44), said control processor converting the media content to a second digital (all formats of signals operating between computers, including webcasting, are inherently digital, because computers are digital devices) format having a characteristic such that the second format is insensitive to the

Art Unit: 2616

transmission propagation delay (converting the packets into a satellite protocol in translation module 231, the protocol designed to operate in long latency environment 10:58-11:2);

A satellite communication signal converter receiving the media content in the second format, said satellite communication converter converting the media content received in the second format to a satellite transmission signal compatible with the satellite communication link (inherently part of the satellite gateway 203, because physical layer 237 of satellite gateway 203 on Fig. 2, converting satellite protocol 233 into a signal for transmission to and from the satellite in a wireless medium 239 10:4-22); and

A satellite uplink transceiver receiving the satellite transmission signal and transmitting the satellite transmission signal to the satellite over the satellite communication link (inherently part of ground station 107 on Fig. 1 and 5:12-18, because the ground station is in communication with satellite 101 over the satellite link 105) wherein the satellite downlinks the satellite transmission signal for the reception on the earth at the second location (ground station 108 on Fig. 1 and 5:4-18).

Also Toporek teaches transmitted media that includes graphics, text, sound, animation and real time communications 1:42-67.

Toporek does not teach media content as live media webcasting and making the satellite uplink portable.

Haldeman teaches live media webcasting (live studio broadcasting distributed through a satellite 172 link and Internet to users 141, shown on Fig. 1 and 3:27-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add live media webcasting of Haldeman to the system of Toporek adding an

Art Unit: 2616

important feature to the system, utilizing the system tolerance to the satellite latency, and making live broadcast available to remote users and make the satellite uplink portable as an obvious design choice, because portable satellite uplink will make the system more flexible for live transmission of numerous events. See regarding an obvious design choice of making a device portable In re Lindberg 93 USPQ 23 (CCPA 1952).

In addition, regarding claim 4, Toporek teaches an uplink router (satellite gateway 111A integrated in a router 6:13-15) comprising a satellite transceiver (satellite ground station comprising a satellite modem 5:14-18, as the satellite modem is integrated with a satellite gateway 6:13-15).

In addition regarding claims 4 and 6, Toporek teaches first location and second location are different, because the system is directed to resolve the problem of long delays, caused by the transmission from a first location to the second location 1:20-32.

In addition regarding claim 20, Toporek teaches receiving the satellite transmission on earth (see ground stations 107 and 108, shown on Fig. 1 and 5:6-24, receiving the satellite transmission), providing a third digital webcast signal to at least one user, wherein the third digital webcast format is first digital webcast format (converting back to the original signal format after the satellite transmission to make the connection transparent to the user 5:38-49), and Haldeman teaches rendering the live media content to the user from the decoded digital webcast signal (providing direct real time transmission to remote webcast customer 173, as shown on Fig. 1 and 3:27-42, inherently decoding the received signal, because decoding a video signal from it's webcast format is essential for it visual presentation).



Art Unit: 2616

2. Regarding claims 2 and 3 Toporek teaches the first format utilizes a TCP protocol having a first propagation delay tolerance less than the propagation delay of the satellite link (using TCP protocol 213 and 229 as shown on Fig. 2 , wherein TCP delay tolerance is less than typical of satellite links 2:34-50) and wherein the satellite link acts as a TCP endpoint such that second format (conversion from TCP format into a satellite format, wherein satellite gateway is the satellite link endpoint as shown on Fig. 2), comprises modified TCP protocol having a second propagation delay tolerance in excess of the propagation delay is insensitive to the delay (modified TCP format suitable for satellite long latency, for example 200-700 ms 10:58-11:6).
3. Regarding claim 5, Toporek teaches an earth station in communication with satellite (satellite ground station 108 on Fig. 1, comprising satellite gateway 6:13-15), receiving the satellite transmission signal and converting it into a third digital webcast signal having the first digital webcast format (translation module 249 converting the satellite signal into a third signal having the first digital webcast format TCP on Fig. 2 and 10:23-36); and  
A router receiving the third digital webcast signal and routing the third digital webcast signal to a wide area network (satellite gateway 205 integrated in a router 6:13-14, routing TCP packets to an Internet as shown on Fig. 1 and 2, 10:30-45, wherein 129 and 259 is Internet).
4. Regarding claim 7, Toporek teaches implementation of the method of claim 6 as computer executable instructions in a personal computer 6:3-12.
5. Claims 11, 15 and 19 are rejected (as best understood) under 35 U.S.C. 103(a) as being unpatentable over Toporek in view of Haldeman in view of Schwendenman (US 5,392,451).  
Toporek in view of Haldeman teaches all the limitations of claims 1, 4 and 6 (see claims rejection above).

Art Unit: 2616

Toporek in view of Haldeman does not teach adjusting the power of the satellite transmission signal.

Schwendenman teaches adjusting the power of the satellite transmission signal (system, shown on Fig. 2 and 5:9-6:65, comprising multiple users in communication with a control station/teleport 110 and adjusting the transmission power of a satellite per the teleport/ground station 110 request to provide appropriate power for different service areas).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add adjusting the power of the satellite transmission signal of Schwendenman to the system of Toporek in view of Haldeman to improve the system operation with multiple and diverse service areas.

### ***Response to Arguments***

6. Applicant's arguments filed 2/16/06 have been fully considered but they are not persuasive.

Regarding arguments, directed to the new claims and limitations, like portable, digital and new claims introduced by the amendment of 2/16/06, please see the rejection of the claims above.

On page 13 of the Response, Applicant argues that Haldeman does not teach live media webcasting.

Examiner respectfully disagrees.

Art Unit: 2616

Examiner based his rejection on the portion of Haldeman that teaches live media webcasting, clearly shown on Fig. 1 as item 171 LIVE FROM STUDIO. The other portions of Haldeman teaching are irrelevant, because Examiner did not use them in the rejection.

On page 14 of the Response, Applicant argues that there is no motivation to combine Toporek and Haldeman teachings.

Examiner respectfully disagrees.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Toporek substantially teaches the limitations of claims 1-7 (see the rejection above) as using a propagation delay insensitive format for the satellite transmission. Haldeman teaches live media webcasting through a satellite.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add live media webcasting of Haldeman to the system of Toporek adding an important feature to the system, utilizing the system tolerance to the satellite latency, and making live broadcast available to remote users.

On page 14-15 of the Response, Applicant argues that Haldeman teaches away from the present invention because it assumes that all satellite transmission should be analog.

Examiner respectfully disagrees.

Art Unit: 2616

The cited portion of Haldeman discloses well known issues related to the analog to digital conversion, however his system is digital, because in the cited portion 2:3-28 video and audio signals are converted to a digital data and compressed.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dmitry Levitan  
Patent Examiner.  
3/7/06